

# 2009 ANNUAL DRINKING WATER QUALITY REPORT

## VILLAGE OF FRIENDSHIP

We're pleased to present to you this year's Annual Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. The Village of Friendship purchases their water from the City of Adams, which is pumped from wells.

Source ID #2 groundwater-Depth: 240 feet.

Source ID #4 groundwater-Depth: 160 feet.

I'm pleased to report that our drinking water is safe and meets federal and state requirements.

If you have any questions about this report or concerning your water utility, please contact Mike Zant, Public Works Director, at 339-3243 – Ext. #4. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the 1<sup>st</sup> Monday of every month at 7:00 p.m. in the Municipal Building located at 507 West Lake Street in the Village of Friendship.

The City of Adams/Village of Friendship Waterworks routinely monitor for constituents in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2009. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we have provided the following definitions:

Term	Definition
AL	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
MCL	Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
MCLG	Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
MFL	million fibers per liter
mrem/year	millirems per year (a measure of radiation absorbed by the body)
NTU	Nephelometric Turbidity Units
pCi/l	picocuries per liter (a measure of radioactivity)
ppm	parts per million, or milligrams per liter (mg/l)
ppb	parts per billion, or micrograms per liter (ug/l)
ppt	parts per trillion, or nanograms per liter
ppq	parts per quadrillion, or picograms per liter
TCR	Total Coliform Rule
TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.

**Lead.** Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities.

**Arsenic.** Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have increased risk of developing benign intestinal polyps.

**Nitrate.** Infants below the age of six months who drink water-containing nitrate in excess of the MCL could become seriously ill and if untreated may die. Symptoms include shortness of breath and blue-baby syndrome.

"All sources of drinking water are subject to potential contamination by constituents that are naturally occurring or are man made. Those constituents can be microbes, organic or inorganic chemicals, or radioactive materials."

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink two (2) liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

## **SPECIAL DETECTION NOTES**

**Nitrates.** As a precaution we always notify physicians and health care providers in this area if there is ever a higher than normal level of nitrates in the water supply.

**Lead.** Lead in drinking water is rarely the sole cause of lead poisoning but it can add to a person's total lead exposure. All potential sources of lead in the household should be identified and removed, replaced or reduced.

**Total Coliform:** The total coliform rule requires water systems to meet a stricter limit for coliform bacteria. Coliform bacteria are usually harmless, but their presence in water can be an indication of disease causing bacteria. When coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If this limit is exceeded, the water supply must notify the public by newspaper, television or radio. To comply with the stricter regulation we may introduce chlorine into the distribution system as necessary when advised.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

In our continuing efforts to maintain a safe and dependable water supply it may be necessary to make improvements in the water system. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements. Please call our office if you have any questions.

"We at the Village of Friendship Waterworks work around the clock to provide top quality water to every tap," said Mike Zant. "We ask that all our customers help us protect our water sources which are the heart of our community, our way of life and our children's future."

### **Educational Information:**

The sources of drinking water both tap water and bottled water; include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

☞ Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

☞ Inorganic contaminants, such as salts and metals, which can be naturally- occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

☞ Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses.

☞ Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems.

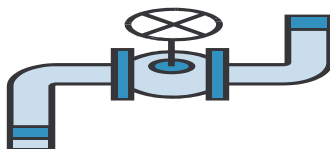
☞ Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which shall provide the same protection for public health.

### **Health effects for any contaminants with MCL violations/Corrective Actions Taken**

Coliform (TCR)      Coliform are bacteria which are naturally present in the environment and are used as an indicator that other; potentially harmful, bacteria may be present. Coliform were found in more samples than allowed and this was a warning of potential problems.

The Village had an MCL violation. On 8/14/07 2 samples indicated the presence of coliform bacteria. This was corrected by implementation of an emergency chlorination order and hydrant flushing. The subsequent check and repeat samples all came back safe and no potentially harmful bacteria were found.



## **PLEASE NOTE:**

This summer we will continue conducting residential cross connection inspections, as per Wisconsin State Regulation (as defined in NR 811.09). We ask that all Village residents work with the utility to get these done in a timely manner. You will be given notice as to when the inspections will be performed.

# The table below shows the most recent testing done by the CITY OF ADAMS WATERWORKS

in accordance with the regulations.

## 2009 TEST RESULTS

### Number of Contaminants Required to be tested:

This table displays the number of contaminants that were required to be tested in the last five years. The CCR may contain up to five years worth of water quality results. If a water system tests annually, or more frequently, the results from the most recent year are shown on the CCR. If testing is done less frequently, the results shown on the CCR are from the past five years.

Contaminant Group	# of Contaminants
Inorganic Contaminants	16
Microbiological Contaminants	2
Radioactive Contaminants	3
Synthetic Organic Contaminants	25
Volatile Organic Contaminants	20

Contaminant (units)	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2005)	Violation Y/N	Likely Source of Contamination
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### *Microbiological Contaminants*

<b>Coliform (TCR)</b>	Presence of coliform bacteria in >= 5% of monthly samples	0	1			N	Naturally present in the environment
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### *Inorganic Contaminants*

<b>Barium (ppm)</b>	2	2	0.023 (average)	.019-.028		N	Discharge of drilling wastes, discharge from metal refineries, erosion of natural deposits
<b>Chromium (ppb)</b>	100	100	1 (average)	0 - 2		N	Discharge from steel & pulp mills; Erosion of natural deposits
<b>Copper (ppm)</b>	AL=1.3	1.3	0.71 (average)	.2100-.8400		N	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
<b>Fluoride (ppm)</b>	4	4	.9 (average)	.2 – 1.1		N	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
<b>Lead (ppb)</b>	AL= 15	0	3.5 (average)	1.60 – 3.50		N	Corrosion of household plumbing systems, erosion of natural deposits
<b>Nickel (ppb)</b>	100		1.1000	1.1000		N	Occurs naturally in soils, ground water & surface waters and is often used In electroplating, stainless steel & alloy products
<b>Nitrate (N03--N) (ppm)</b>	10	10	0.5 (average)	.0 – 1.00		N	Erosion of natural deposits; Discharge Run-off from fertilizer use; leaching from septic tanks, sewage, erosion of natural deposits
<b>Sodium (ppm)</b>	n/a	n/a	4.15 (average)	1.83 – 6.47		N	n/a

### *Volatile Organic Contaminants*

<b>Benzene (ppb)</b>	5	0	.3 (average)	0 - .5		N	Discharge from factories; leaching from gas storage; tanks and landfills
<b>Trichloroethylene (ppb)</b>	5	0	.1 (average)	0 - .3		N	Discharge from metal degreasing Sites and other factories

Corrective Action Taken -

On 10-22-08 an unsafe sample came back. The resulting repeat and check samples were all safe.

Information about Friendship Waterworks/City of Adams source water is also available online at the Wisconsin DNR website:

[http://prodoasext.dnr.wi.gov/inter1/pk\\_swap\\_web.p\\_swap\\_summary?i\\_ro\\_seq\\_no=146941](http://prodoasext.dnr.wi.gov/inter1/pk_swap_web.p_swap_summary?i_ro_seq_no=146941)

# The table below shows the most recent testing done by the FRIENDSHIP WATERWORKS

in accordance with the regulations

## 2009 TEST RESULTS

**Source of Water: Purchased Groundwater from the City of Adams**

### Number of Contaminants Required to be tested:

This table displays the number of contaminants that were required to be tested in the last five years.

The CCR may contain up to five years worth of water quality results. If a water system tests annually, or more frequently, the results from the most recent year are shown on the CCR. If testing is done less frequently, the results shown on the CCR are from the past five years.

Contaminant Group	# of Contaminants
Inorganic Contaminants	3
Microbiological Contaminants	2

Contaminant (units)	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2009)	Violation Y/N	Likely Source of Contamination
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### *Microbiological Contaminants*

<b>Coliform (TCR)</b>	Presence of coliform bacteria in >=5% of monthly samples	0				N	Naturally Present in the environment
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### *Inorganic Contaminants*

<b>Copper (ppm)</b>	AL=1.3	1.3	0.32	0 of 10 Results were Above the action level	09/17/08	N	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
<b>Lead (ppb)</b>	AL=15	0	4.1	1 of 10 Results were Above the action level	09/18/08	*	Corrosion of household plumbing systems ; Erosion of natural deposits

No more than 10% of the lead samples exceeded the 15 ug/L action level. Therefore, there was no violation for the 2008 testing period. If you want information on the number of sites or the actions taken to reduce these levels, please contact your water supply operator.

\* Systems exceeding a lead and/or copper action level must take actions to reduce lead and/or copper in the drinking water. The lead and copper values represent the 90th percentile of all compliance samples collected. If you want information on the NUMBER of sites or the actions taken to reduce these levels, please contact your water supply operator.

**Information about FRIENDSHIP WATERWORKS is also available online at the Wisconsin DNR website:**

**[http://prodoasext.dnr.wi.gov/inter1/pws2\\$ws\\_web\\_dist\\_sys.QueryViewByKey?P\\_RO\\_SEQ\\_NO24=146943&Z\\_CHK=33084](http://prodoasext.dnr.wi.gov/inter1/pws2$ws_web_dist_sys.QueryViewByKey?P_RO_SEQ_NO24=146943&Z_CHK=33084)**

We're proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water IS SAFE at these levels.